

Figure 1: Model of the biosynthesis of the spinosyn sugars
D-forosamin and 2, 3, 4 tri-O-methyl-L-rhamnose

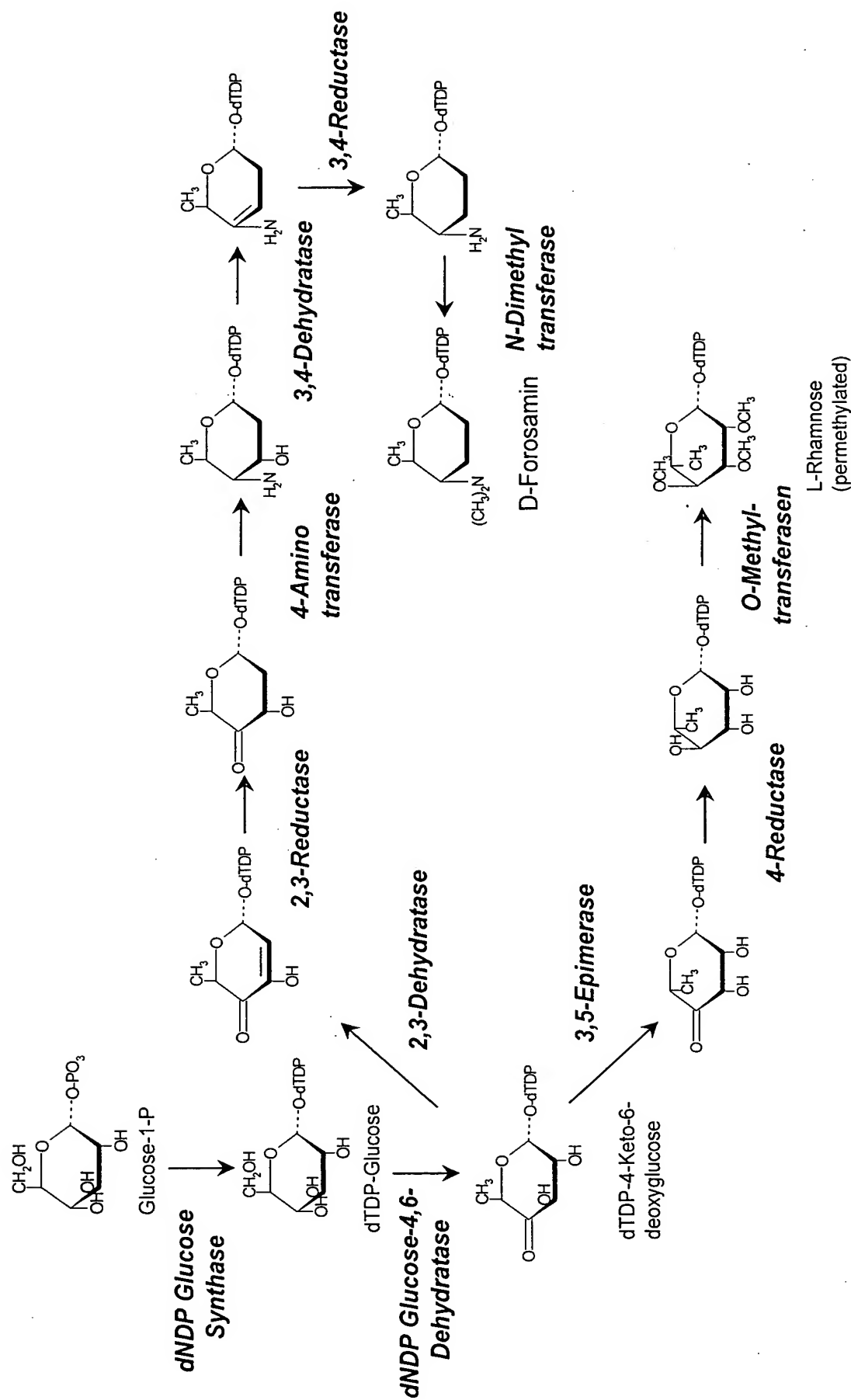
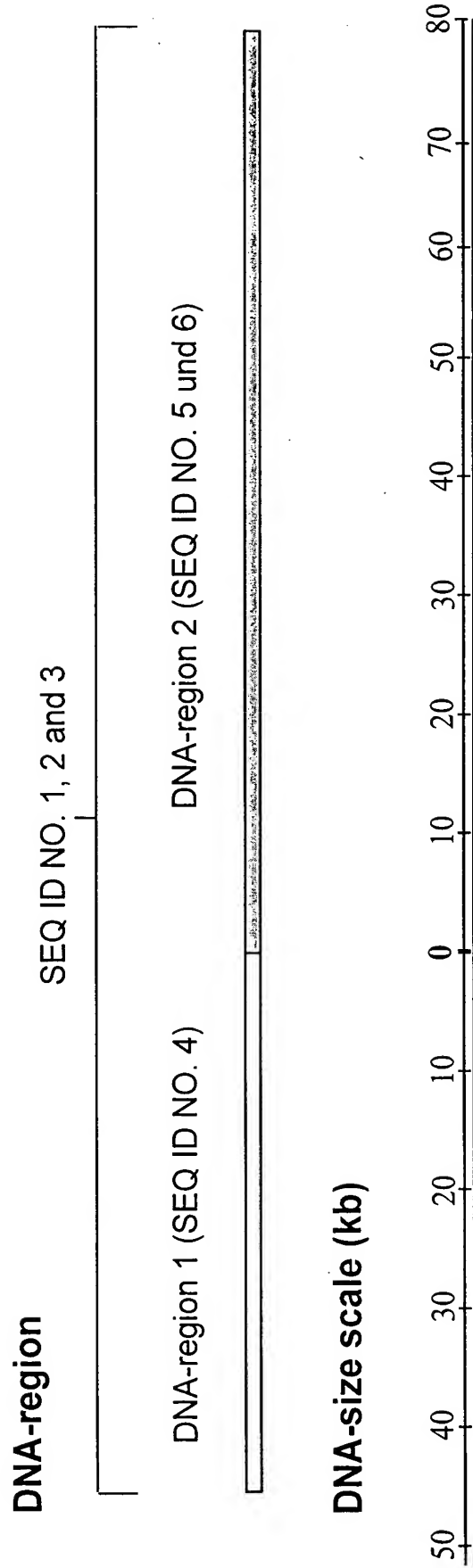


Figure 2: Position of the DNA regions 1 and 2, which are directly or indirectly involved in the biosynthesis of spinosyn as well as position and designation of overlapping cosmid inserts used for sequencing



Cosmid-designation, as well as size, position and overlapping of insert-DNA

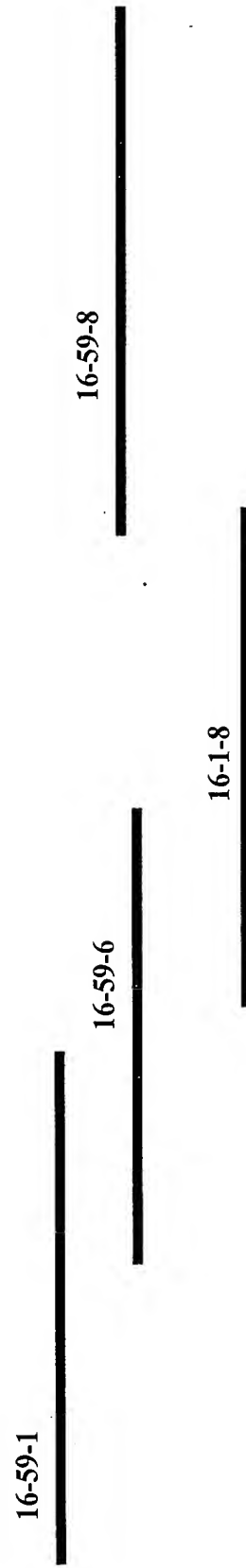
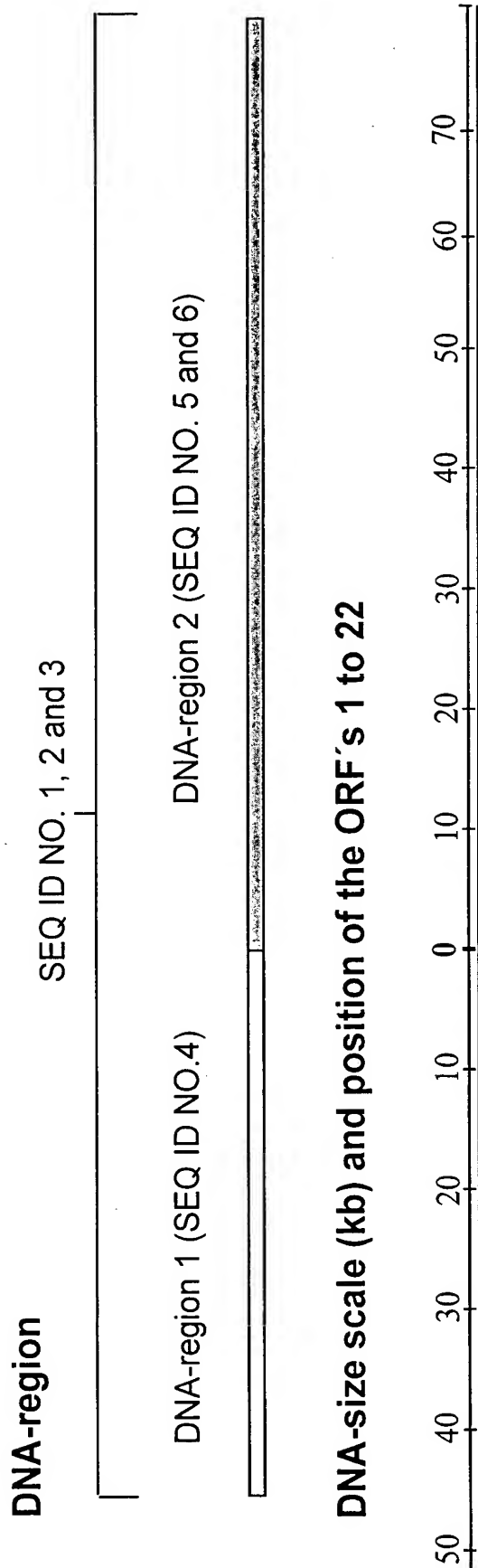


Figure 3: Cosmids used for biotransformation



Cosmid-designation, as well as size and position of insert-DNA



**Figure 4: Illustration of open reading frames
of DNA-region 3 (SEQ ID NO. 51) of cosmid 16-2-2**

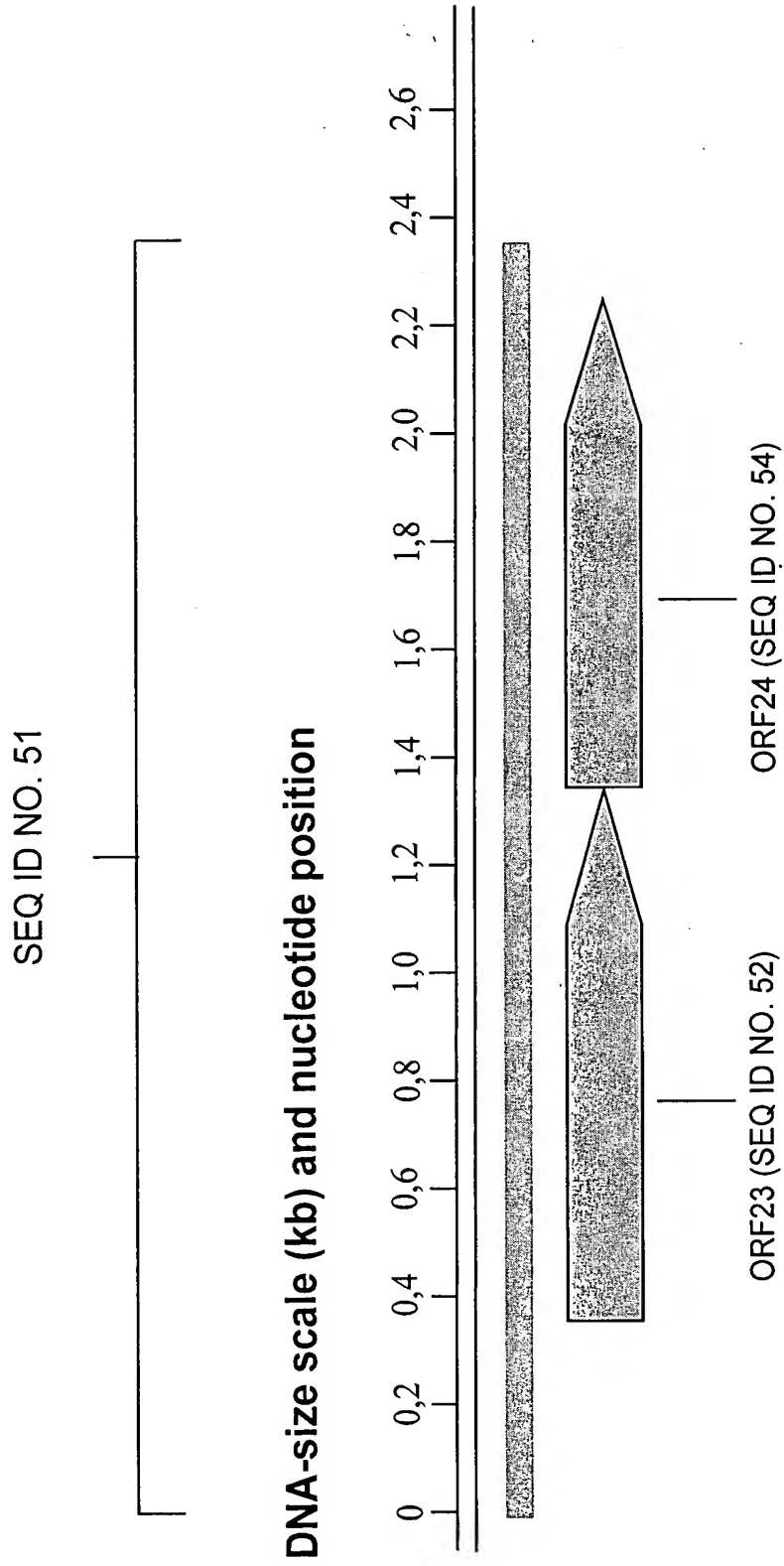


Figure 5: Illustration of open reading frames of the DNA-regions 1 and 2, which are directly or indirectly involved in the biosynthesis of spinosyn

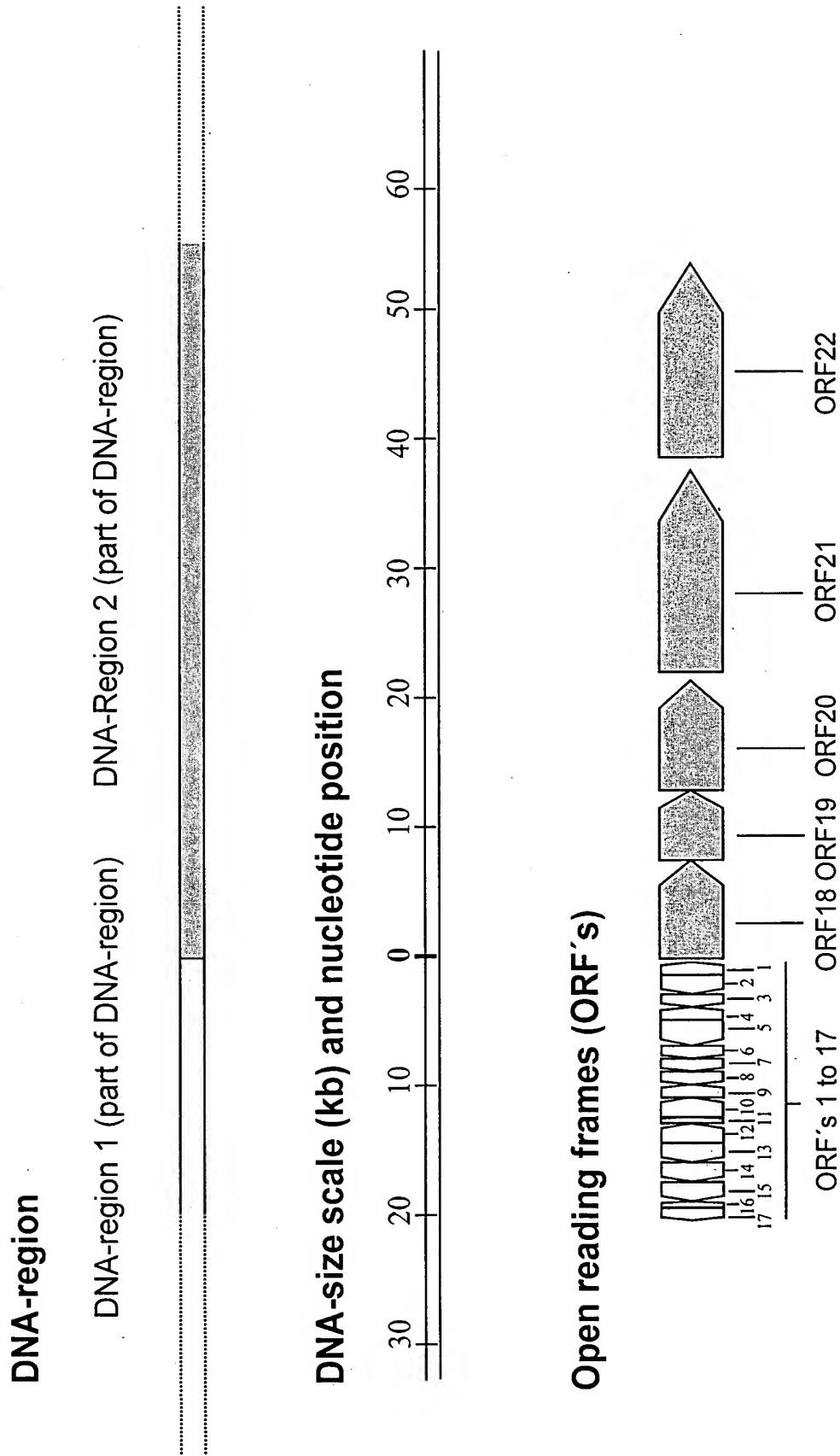


Figure 7: Illustration of BAC shuttle clones containing spinosyn biosynthetic genes

